

AMENDMENT TO THE CLAIMS:

Please amend the claims as shown in the listing of the claims below. The listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A vector for use in a high throughput anti-viral assay wherein the vector encodes a replication competent HIV-1 virus, said vector comprising an HIV-1 genome in which a region non-essential for viral replication has been replaced by a reporter gene wherein expression of the reporter gene is dependent on replication of the HIV-1 virus, ~~and the expression of the reporter gene can be measured in a high throughput anti-viral assay, and wherein said vector is capable of initiating multiple rounds of viral infection.~~
2. (Previously Presented) The vector according to claim 1, wherein said reporter gene is selected from the group consisting of the renilla luciferase reporter gene, the SEAP reporter gene, and the green fluorescence protein gene.
3. (Previously Presented) The vector according to claim 2 wherein said reporter gene is selected from the group consisting of the renilla luciferase reporter gene and the SEAP reporter gene.
4. (Previously Presented) The vector according to claims 1, 2 or 3 wherein the region non-essential for viral replication encodes the nef gene or a fragment of the nef gene.
5. (Previously Presented) The vector according to claims 1, 2 or 3 wherein the region non-essential for viral replication encodes the vpr gene or a fragment of the vpr gene.
6. (Previously Presented) The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the pNL4-3 proviral clone.

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7. (Previously Presented) The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the pYU-2 proviral clone.

8. (Previously Presented) The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the p89.6 proviral clone.

9. (Previously Presented) The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the HIV-1 Lai proviral clone.

10. (Previously Presented) A cell comprising the vector of claim 1, 2 or 3.

11. (Previously Presented) A high throughput method of screening for compounds that exhibit anti-viral activity against HIV-1 comprising:

a) adding a test compound to mammalian cells infected or cells to be infected with the vector according to claim 1, 2 or 3; and

b) comparing reporter gene activity in cells exposed to the test compound to the level of expression in control cells,

wherein a reduction in the level of reporter gene expression indicates the test compound inhibits HIV-1 replication.

12. (Previously Presented) The method according to claim 11, wherein the mammalian cells are MT-2 #18 cells.

13. (Currently Amended) A vector for use in a high throughput anti-viral assay wherein the vector encodes a replication competent HIV-1 virus, said vector comprising an HIV-1 genome in which a region non-essential for viral replication has been replaced by a nucleic acid sequence

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encoding a functional renilla luciferase enzyme, and wherein said vector is capable of initiating multiple rounds of viral infection.

14. (Previously Presented) The vector according to claim 13 wherein the renilla luciferase gene contains a cysteine to alanine substitution that results in a functional renilla luciferase enzyme.

15. (Previously Presented) The vector according to claim 13 wherein the region non-essential for viral replication encodes the nef gene or a fragment of the nef gene.

16. (Previously Presented) The vector according to claim 13 wherein the region non-essential for viral replication encodes the vpr gene or a fragment of the vpr gene.

17. (Previously Presented) The vector according to claim 13 wherein the HIV-1 genome is the genome of the pNL4-3 proviral clone.

18. (Previously Presented) The vector according to claim 13 wherein the HIV-1 genome is the genome of the pYU-2 proviral clone.

19. (Previously Presented) The vector according to claim 13 wherein the HIV-1 genome is the genome of the p89.6 proviral clone.

20. (Previously Presented) The vector according to claim 13 wherein the HIV-1 genome is the genome of the HIV-1 Lai proviral clone.

21. (Previously Presented) A cell comprising the vector of claim 13.

22. (Previously Presented) A high throughput method of screening for compounds that exhibit anti-viral activity against HIV-1 comprising:

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a) adding a test compound to mammalian cells infected or cells that will be infected with the vector according to claim 13; and

b) comparing reporter gene activity in cells exposed to the test compound to the level of expression in control cells,

wherein a reduction in the in the level of reporter gene expression indicates the test compound inhibits HIV-1 replication.

23. (Previously Presented) The method according to claim 22, wherein the mammalian cells are MT-2#18 cells.